

SAFE COATINGS APPLICATION

1.0 PURPOSE

To give employees involved in Brand coatings work a brief overview of typical applications and safe work procedures.

2.0 SCOPE

This procedure applies to all Brand employees performing coatings activities.

3.0 RESPONSIBILITIES

Responsibilities are as follows:

- 3.1 Management will establish and maintain the coatings procedure. This procedure will confirm the basic principle that Company operations shall be performed with the highest regard for the safety and health of the employees and the public. Allocate the resources necessary to ensure adequate staffing levels, provide for the acquisition of necessary equipment, and cover reasonable operating expenses. Provide the resources needed to comply with applicable federal, state, and local standards, regulations, policies and codes.
- 3.2 Supervisors will provide real time communication between employees, management, and staff. Identify potential hazards, communicate these and ensure the implementation of necessary corrective actions.
- 3.3 Employees are in a key position to ensure programs are effective and practical. Employee responsibilities include:
 - 1. Perform work safely and in accordance with the requirements of the industrial hygiene program.
 - 2. Be aware of changing work place conditions.
 - 3. Report any observed unsafe acts or conditions to their supervisor.
 - 4. Respond appropriately to all emergency-warning signals.

4.0 GENERAL SAFETY REQUIREMENTS

- 4.1 Industrial coatings applicators employed by Brand are expected to maintain quality work in compliance with our client's specifications. Our employees are also expected to comply with all safety rules and regulations, and conduct themselves in a manner that will not be injurious to themselves or any co-worker. Our employees are expected to act in compliance with the safe work policies and procedures of Brand and our clients, as well as any governmental Safety Regulations.
- 4.2 Due to the large number of different types of coatings, it is critical that all Brand personnel comply with manufacturer's application specifications and PPE requirements.
- 4.3 Quality respiratory protective equipment is supplied to all Brand coatings applicators. This PPE must be worn when working with coating materials that pose an inhalation hazard.
- 4.4 When applying coatings with spray equipment, work up-wind if possible and inform other tradesmen in the vicinity of the inhalation hazard.

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- 4.5 Coatings applicators are required to work close to hot piping and other hot process equipment. Depending upon the hazards present and the operations being performed, specific PPE will be specified in the Job Safety Plan.
- 4.6 Coatings applicators are often required to work from scaffolding. It must be ensured that all such workers receive scaffold user training prior to the job.
- 4.7 Many coatings require VOC tracking. Ensure all personnel comply with site Permitting requirements.
- 4.8 Mixing Area Precautions – Paint process areas shall be covered with poly plastic. A suitable fire extinguisher must be located within 25 ft of the affected area. The area must also be barricaded to prevent unauthorized persons from entering.
- 4.9 Any spills shall be cleaned up immediately using a suitable spill kit.
- 4.10 Temporary paint storage – Coatings shall be stored inside a pan large enough to contain any spills or leakage. Proper warning signs (eg. flammables – liquid, solid) shall be posted in the storage area.
- 4.11 Labeling – All coating containers must be labeled in accordance with HAZCOM/WHIMIS requirements.
- 4.12 Closed containers – All coating containers must be properly sealed when not in use.
- 4.13 Coatings applicators often use other forms of work access such as spiders, stages, aerial lifts and scaffolding. The safety requirements (eg. fall protection) associated with these devices must be followed at all times.

5.0 SAFE WORK PROCEDURES FOR COATING EQUIPMENT/TOOLS AND APPLICATION PROCESSES

During the coatings application process, various equipment/tools and coating types are used. Safe Work Procedures for many tools and equipment are provided here in Appendix A.

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APPENDIX A

SAFE WORK PROCEDURES FOR COATING EQUIPMENT/TOOLS AND APPLICATION PROCESSES

1.0 PORTABLE AIR COMPRESSOR, SPOTTING AND SET-UP

a) Safety:

1. Locate on firm level ground (preferably away from trenches, ditches or canals).
2. Chock wheels before disconnecting from towing vehicle (use military hitch procedure).
3. Do not stand on back of truck, try to lift tongue by hand or in any way force the tongue from the military hitch.
4. If necessary use a cement cinder block, wooden 4 X 4 or other appropriate support to raise the tongue to the proper height. Multiple 2 X 4's do not offer sufficient support for this.
5. After disconnecting, level unit with jack.
6. Place drip pan under machine.
7. Required PPE:
 - Leather gloves
 - Steel toe boots with ½" defined heel
 - Hard Hat
 - Safety Glasses with Side shields
 - Ear Plugs

b) Operations:

1. Visually inspect compressor.
 - a) No visible leaks.
 - b) Condition of exhaust system.
 - c) Belts tight and in good condition.
 - d) Battery
 1. Caps in place.
 2. Cables tight and in good condition.
 - e) Check air filters daily and clean as necessary.
 - f) Fuel level.
 - g) Engine oil level.

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- h) Compressor oil level (sight glass).
- i) Radiator hoses in good condition.
- j) Radiator coolant level (cold engine only).
- k) All service valves closed.
- 2. Start engine according to operating instructions for particular model.
- 3. Allow unit to come to operating temperature before placing in service.
- 4. Check all gauges for normal readings.
- 5. Look for leaks and unusual noise or vibration.
- c) Shut-Down:
 - 1. Close all service valves.
 - 2. Allow unit to run at idle speed for 2 - 3 minutes to allow cool down (this is very important for turbo-charged engines).
 - 3. Shut down per model instructions.
 - 4. Relieve pressure in system by:

For Compressors with Automatic Bleed Down Valves we should never manually bleed the air compressor off by the attached bleed-off valve on the machine. This can damage the separator, which is normally a very expensive item. All PSG air compressors come equipped to automatically vent themselves. Close the discharge valve on the compressor and then bleed the system downstream.

If you are using a rental compressor that does not have an Automatic Bleed Down Valve you will need to use the attached bleed-off valve to relieve pressure

2.0 SEVEN STAGE AIR FILTER

Seven stage air filters used to remove water and oil from compressed air systems are considered to be portable unfired pressure vessels and fall under OSHA 1915.172 (a), (b) & (c) and ASME guidelines. The following guidelines must be followed:

- 1. The relief valves on the Seven Stage Air Filter must be set to the safe working pressure of the Seven Stage Air Filter, or set to the lowest safe working pressure of the system, whichever is lower.
- 2. Annual Hydrostatic testing to 1 1/2 times the rating of the filter.
- 3. Quarterly inspection by competent person.

The Seven Stage Air Filter will be inspected monthly to check the condition of the filter cartridge and anytime water or oil bleeds through to the discharge side of the filter.

Operating the Seven-Stage Air filter without a pressure relief valve or with the relief valve tied down can compromise the integrity of the filter and is strictly forbidden.

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3.0 AIRLESS PUMP, SPRAY HOSE & GUN

a) Safety:

1. Inspection of Pump and Equipment

- a) General condition of pump (Frame, Pump Mounts)
- b) Fittings tight and good condition.
- c) Regulator and pressure gauge in good condition and operational.
- d) Hose (No kinks or worn areas of outer cover).
- e) Fittings - Tight and good threads. No excessive corrosion
- f) Gun - Equipped with nozzle guard (Duck Bill) and trigger lock.
- g) Ground wire.

2. Required PPE:

- Leather gloves
- Steel toe boots with ½" defined heel
- Hard Hat
- Respirator
- Monogoggles
- Face Shield
- Long Sleeved Shirt
- Ear Plugs

3. Miscellaneous Safety Issues

- a) Pressure at tip is very high, never point nozzle at anything but the work surface.
- b) Due to high pressures, hoses and fittings must be in good condition. Sub-par condition of equipment can result in a serious incident.
- c) Hoses and fittings must be rated for the pressures required to apply materials.
- d) Air hoses ¾" and greater must have whip checks at all connections.

b) Operations:

- 1. Connect air hose to air supply valve.
- 2. Hold live end of hose and point in safe direction (away from you or others).
- 3. Open air valve slightly to blow out hose (remove foreign matter).
- 4. Attach air supply hose from air compressor to pump inlet (close nipple valve).
- 5. Attach spray hose from pump outlet to spray gun.

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6. Attach ground wire from pump to an adequate grounding system, must have less than 1-ohm resistance between nozzle and work surface.
 7. (Structural beam or grounding rod. **Caution - Installation of grounding rod will require an excavation permit in some facilities.**).
 8. Insure that pressure regulator is completely closed (turn knob counter clockwise) and trigger lock on gun is in safe position (should not be able to pull trigger back).
 9. Add oil to oil cup if needed.
 10. Place siphon tube in material container.
 11. Remove spray tip from gun.
 12. Holding gun over empty container, unlock trigger and pull.
 13. Open air valve.
 14. Slowly increase air pressure (turn regulator knob clockwise) until pump begins to cycle.
 15. Increase pressure until coating flows from gun.
 16. Release and lock trigger.
 17. Replace tip and secure.
 18. Gun is ready for operation (adjust pressure as needed to produce desired pattern).
- c) Depressuring:
1. Close (turn knob counter clockwise) regulator.
 2. Relieve pressure at gun by holding over container and pulling trigger or by opening bleed valve if equipped.
 3. Close air valve.
 4. System is safe.
 5. Follow Operations Instructions #05 through #10 for clean up.
 6. Disconnect hoses and roll up and store in proper place.

4.0 MILITARY HITCH

- a) Inspection Of The Hitch
1. Check the attachment of the military hitch to the truck. (Weld or Mounting Bolts)
 2. Verify load capacity of military hitch against the load to be pulled.
 3. Confirm that the hitch is properly lubricated. (HINGE AND SAFETY LATCH)
 4. Inspect the safety pin, making sure that it fits tightly into the safety latch opening.
- b) Required PPE:
- Leather gloves
 - Steel toe boots with ½" defined heel

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- Hard Hat
 - Safety Glasses with Side shields
- c) Hook Up Procedure
1. Make sure that the military hitch is in the open position, before backing up to the equipment.
 2. Align your vehicle with the equipment to be towed and then slowly back up.
 3. Stop the truck a short distance from the tongue of the equipment to be towed. (Approximately 1 Foot)
 4. Turn the ignition of the truck off and set the parking brake.
 5. Get out of the truck and make visual inspection to confirm that the height of the military hitch and the height of the equipment tongue are compatible.
 6. The elevation of the tongue will be adjusted, if the height is not compatible, by using the leveling jack on the equipment.
 7. When the proper height adjustment is made, get into the truck, start it, release the parking brake and slowly back up to the equipment.
 8. Then set the parking brake again, and turn off the ignition.
 9. Engage the latch on the military hitch, making sure that the safety latch is seated properly. Put the safety pin in to keep the latch from accidentally opening. In the event, that the hitch will not close freely and easily; proper adjustments to the equipment tongue, using the jack, will be made so the hitch will engage freely and easily.
 10. Make final visual inspection of the hook up. Remove chocks from the wheels of the equipment, and put the leveling jack in the horizontal (towing) position.
- d) Unhooking The Military Hitch
1. Spot or set the equipment in a flat area, so the leveling jack can be utilized.
 2. Turn off the ignition and set the parking brake.
 3. The wheels of the equipment will be chocked to prevent rolling.
 4. Leveling jack will be lowered into place and secured with the retaining pin. (Either front or back, as needed, with Abrasive Pots.)
 5. Using the leveling jack, raise the tongue of the equipment in the direction that enables the tongue of the equipment to decrease contact with the hitch.
 6. Once the contact has been eased on the hitch, use channel locks, or a similar grasping tool to pull the safety pin out of the military hitch, and lift the safety latch. **(AT NO TIME WILL THE WORKER USE HIS HANDS TO LIFT THE SAFETY LATCH!)**
 7. After the safety latch is released use the leveling jack to raise the equipment tongue out of the military hitch.

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8. Do not stand on back of truck, try to lift tongue by hand or in any way force the tongue from the military hitch.
9. If necessary use a cement cinder block, wooden 4 X 4 or other appropriate support to raise the tongue to the proper height. Multiple, stacked 2 X 4's are unstable and do not offer sufficient support for this.
10. A visual inspection will be done to ensure that the equipment is physically detached from the military hitch, and also checking the wheel chocks for stability, and the leveling jack for obvious strains.
11. Move the vehicle away from the equipment that was just spotted or set.
12. The equipment will be jacked into a level position using the leveling jack.

5.0 AIR POWERED (PNEUMATIC) DISC SANDER/BUFFER

a) Safety:

1. Required PPE:
 - Leather gloves
 - Steel toe boots with ½" defined heel
 - Hard Hat
 - Monogoggles
 - Faceshield
 - Long Sleeved Shirt
2. Inspect tool for general condition.
 - a) Disc or cup brush is in good condition (no tears or cracks in disc).
 - b) Disc or cup firmly attached to head of tool.
 - c) Turns freely.
 - d) Air hose connection tight and good condition.
3. Guards and T-bars are not required on pneumatic sanders/buffers, but are required on grinders. If using a grinder, all guards and T-bars must be in place prior to operation. Two hands must be used on both sanders/buffers and grinders at all times. When re-positioning buffers/sanders and grinders, allow the wheel to stop spinning prior to re-positioning.

b) Operation:

1. Lubricate tool with hydraulic oil or A-T-F through air inlet (do not use motor oil).
2. Connect air hose to air supply valve and secure.
3. Hold live end of hose and point in a safe direction (away from yourself and others).
4. Open air valve slightly and blow out hose to remove foreign matter.

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5. Close valve.
 6. Attach hose to air tool and secure.
 7. Holding tool firmly, slowly open air valve (Check for leaks in air supply).
 8. Operate tool with both hands, making sure "Dead-Man" trigger is operating properly.
- c) Disconnecting:
1. Close air supply valve.
 2. Hold tool firmly and depress trigger.
 3. Insure all pressure is relieved.
 4. Depress trigger while disconnecting air hose.
 5. Store in proper place and roll up and store hoses.

6.0 "B-1" CHIPPER AND NEEDLE SCALER

- a) Safety:
1. Required PPE:
 - Leather gloves
 - Steel toe boots with ½" defined heel
 - Hard Hat
 - Face shield
 - Safety Glasses with Side shields
 - Long Sleeved Shirt
 2. Inspect tool:
 - a) General Condition
 - b) Fitting in good condition and tight
 - c) Chisel or needles in good condition (Chisel sharp w/no cracks or chips in shaft, needles straight and not broken)
 - d) Air hose in good condition
- b) Operation:
1. Connect air hose to air supply valve.
 2. Hold live end of hose and point in safe direction (away from you or others).
 3. Open air valve slightly to blow out hose (remove foreign matter).
 4. Connect air hose to tool and secure.
 5. Holding tool firmly, slowly open air valve (check for leaks).
 6. Operate tool with both hands, insure that "Dead-Man" trigger is working properly.

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7. Ensure the needle scaler is in contact with the work surface prior to actuating deadman trigger.
- c) Disconnecting:
 1. Close main air supply valve.
 2. Holding tool firmly, depress trigger until all pressure is relieved.
 3. Hold trigger down while disconnecting tool from hose.
 4. Store in proper place and roll up and store hoses.

7.0 GASOLINE POWERED HIGH PRESSURE WASHERS

- a) Safety Equipment
 1. Hard Hat
 2. Leather gloves
 3. Faceshield
 4. Sideshield Safety Glasses
 5. Hearing Protection
 6. Long Sleeved Shirt
 7. Steel toe boots with ½" defined heel
- b) Procedure
 1. Make a visual inspection of the equipment.
 - a) Gasoline
 - b) Oil
 - c) Equipment Level
 - d) Hoses Connected
 - e) Chock Wheels Before Going to Step Two (2)
 - f) Starter rope is in good condition
 2. Turn on water supply and verify flow through dump valve.
 3. Consult owners' manual for starting sequence.
 4. Starting requires two workers. One worker holds the wand and depresses the handle.

NOTE: Point the wand nozzle away from personnel and equipment.

The second worker is responsible for starting the motor.
 5. Turn motor switch to "ON" position.
 6. Place foot on motor platform.
 7. Grasp the pull rope handle firmly with both hands (overlap hands on handle) and pull.

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NOTE: After motor is running you can release the wand handle.

8. Direct wand at work surface prior to engaging trigger. Never point at any part of yourself or another person.

8.0 600 POUND (SIX SACK) ABRASIVE POT

a) Equipment Inspection

1. Empty the abrasive pot before attempting to move the pot.
2. Check the condition of the tires and proper inflation.
3. Remove any loose objects that could fall or obstruct the wheels.
4. Remove hoses that may be attached to the pot.

b) Route Establishment

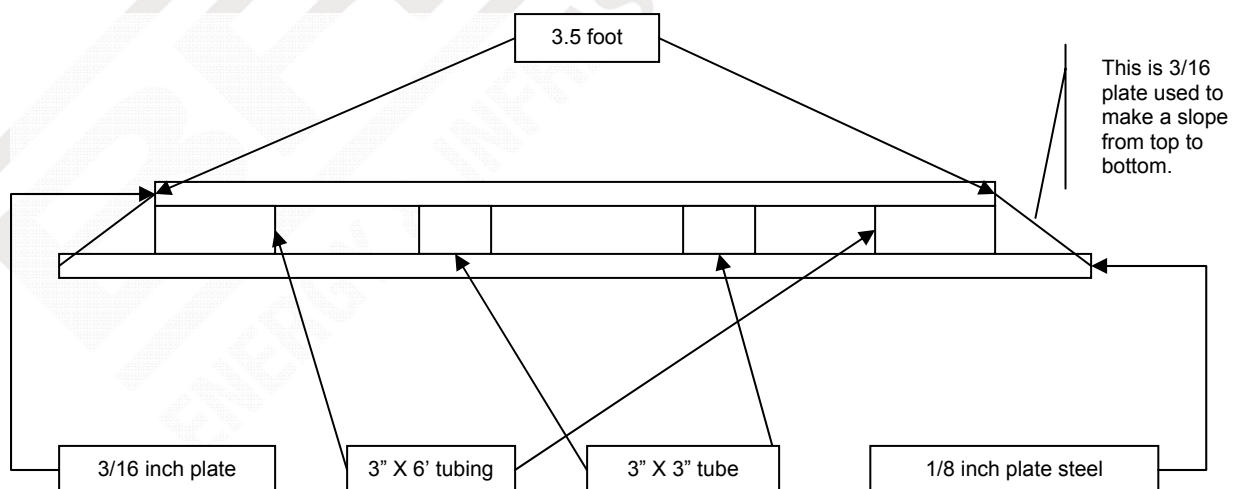
1. Pre-determine a route that you want to use when you move the pot. Try to route your move over level ground, and free from obstacles.
2. Locate the transport equipment (truck) as close as possible to the abrasive pot.

c) Transporting Pots

1. All six bag pots shall be mounted permanently to skids or mobile truck rigs.
2. Personnel are not allowed to handle six bag pots. All six bag pots when purchased will be permanently mounted to skids to prevent personnel from attempting to move pots manually. All pots will be moved only through use of material handling equipment.

- Forklift

d) Mount Specifications (see below)



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e) Pot Mounting

Pots must be mounted in a manor that protects controls from damage while being transported (see below).



9.0 SPIDER STAGING

a) Transporting Spider Staging

1. It is recommended that the spider staging be transported in the upright position.
2. If the spider staging must be transported in the prone position, it must be done, control panel down, with the tie-downs going over the middle brace on one side, under the center rail of the tripod and then over the middle rail on the other side. See figure 1.
3. When off-loading spider staging with a crane, use a cable or sling on the chain guard, placing both eyes on the hook of the crane. **Do not run one eye through the other and connect a single eye to the hook of the crane. This could cause the rigging to cinch down on the cable guard and damage it.**

b) Training And Certification

1. All personnel will be trained and certified by a competent person prior to operating spider staging.
2. Training will include:
 - Transportation of spiders

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- Inspection of spiders
- Fall Protection
- Rigging
- Horizontal transfers
- Operator responsibilities
- Video on the operation of spider staging
- Post training exam
- Hands on training
- Performance evaluation

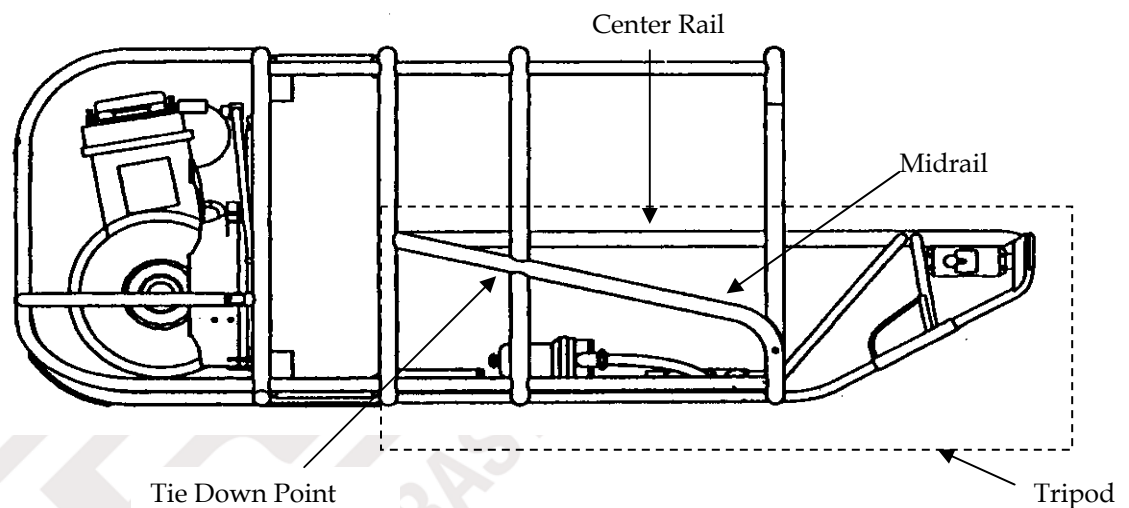


Figure 1

c) Use And Inspection

1. The user shall be properly trained in the use and rigging of this equipment.
2. Do not use stage if side rail or deck members are broken.
3. Before the beginning of each shift, the operator shall visually inspect the spider as per the attached Spider Staging Daily Checklist – Form A.
4. Employee shall not work in spider during storm or high winds.
5. Lifeline shall be 5/8" dacron rope, or appropriate equivalent.
6. Lifeline shall be examined daily for cuts and for worn or broken fiber
7. Once lifeline shows weakening, it shall be discarded.

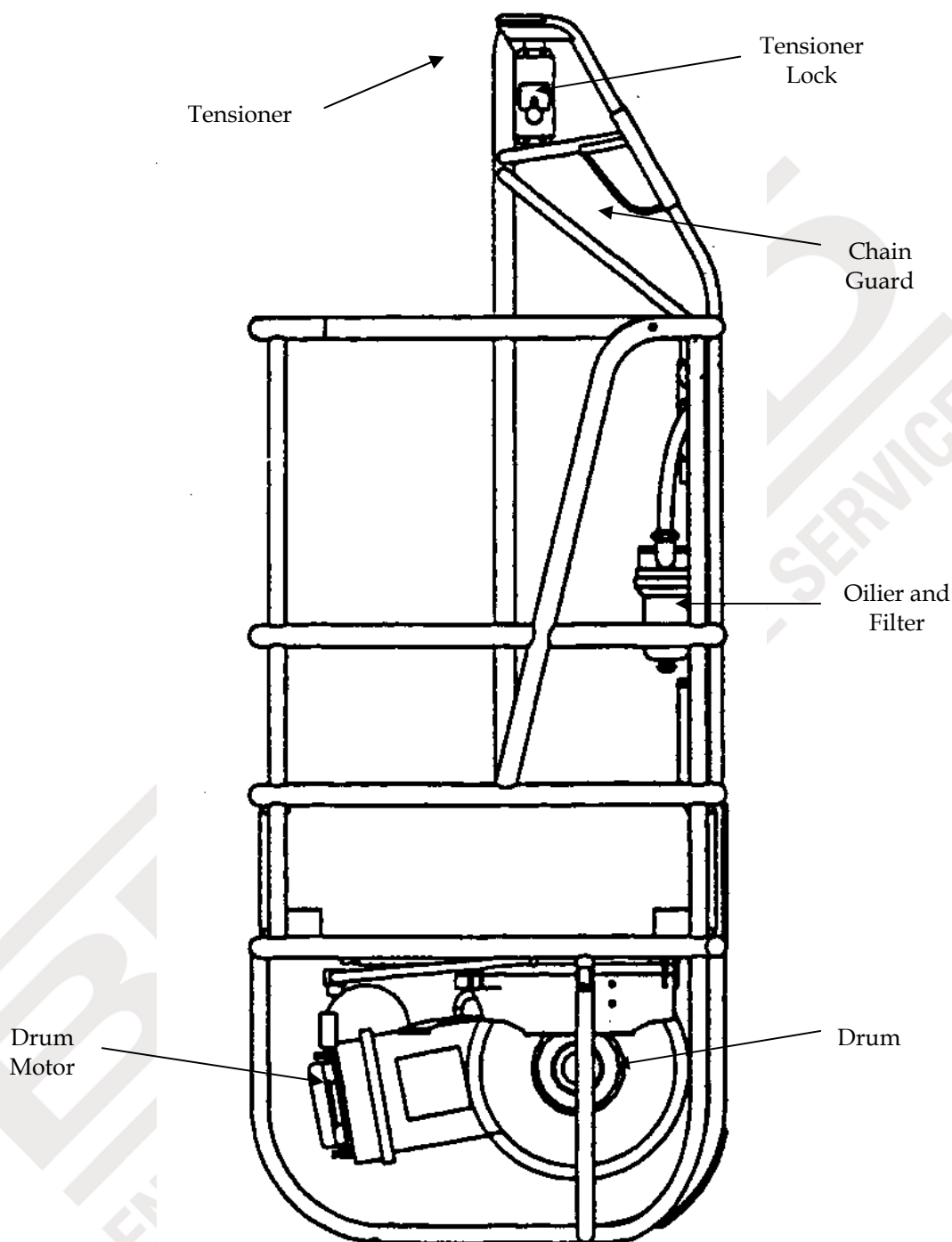
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8. Safety harness shall be worn and attached to rope grab on lifeline with a 3' lanyard. The 3' lanyard shall not be removed from the lifeline until the Spider basket operators' or passengers' feet are firmly on the ground or surface of the tank or vessel being worked on.
 9. Rope grab shall be washed clean and be free of grit before each use.
 10. Rope grab shall be inspected daily for worn, bent or otherwise weakened parts.
 11. Lifeline shall be secured to an anchorage or structural member capable of handling 5400 pounds. Do not secure lifeline to anchorage that is suspending spider.
 12. The anchor point for the supporting cable of the spider must be of sufficient strength to support 4 times the intended weight of the spider, the operator and any materials and tools. **For an anchorage point, the cable eye may be passed up through the grating and a schedule 40; 2" pipe will be passed through the eye and will extend beyond each grating support.**
 13. The supporting cable shall be straight for its entire length, and the operator shall not sway the basket and fix the cable to any intermediate points to change his original path of travel.
 14. When cable passes over or around sharp edges (angles or beams) it shall be shielded with a section of rubber hose to prevent contact.
 15. Equipment shall be maintained and used in accordance with manufacturers' instructions.
- d) Operator's Responsibility
- The operator is totally dependent upon the equipment. His knowledge of equipment and his ability to determine its condition can prevent accidents.
1. Inspect the wire rope daily.
 - a) Rust or corrosion.
 - b) Lack of lubrication.
 - c) Broken wire.
 - d) Kinks.
 - e) Crushed spots or abrasive wear.
 2. Check wire rope guides for signs of wear or other damage.
 3. Check wire rope to insure that it is evenly wound on the drum.
 4. Motor control switch must be checked in both directions.
 5. Check air hoist for any unusual behavior or loss of power.
 6. Oiler and Filter.
 - a) This helps to remove dirt and water from incoming air supply.
 - b) Before checking oiler and filter, disconnect air supply; drain the filter at least daily.

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- c) To drain filter, loosen thumbscrew located on the bottom of filter. After the water has drained, reset thumbscrew.
- d) The oiler should be inspected daily. Remove filter cap on top of oiler assembly and fill with Mobil Almo Oil No. 525 or Automatic Transmission Fluid.
- 7. Check the frame of the spider for broken parts.
- e) Inspection
 - 1. Daily and before operation. See Spider Staging Daily Checklist form (Form A) attached.
 - 2. Every 30 days, or before installing on a new job, the spider stage shall be inspected and tagged.
 - 3. The Area Shop shall have a copy of the monthly inspection on file. A copy must also be sent to the corporate office.
 - 4. After passing inspection each stage shall have a tag attached to the frame showing the date of the last inspection.
 - 5. It is the responsibility of each job supervisor to have spiders inspected.
 - 6. No equipment will be used with an expired inspection.

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FORM A

SPIDER STAGING DAILY CHECKLIST

Date #:	Job #:
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	Yes	No
1. Frame and welds in good condition?	<input type="radio"/>	<input type="radio"/>
2. Cable guide assembly working properly and in good condition?	<input type="radio"/>	<input type="radio"/>
3. Cable guard in good condition, not bent or cracked at welds?	<input type="radio"/>	<input type="radio"/>
4. Tension holder working properly and in good condition?	<input type="radio"/>	<input type="radio"/>
5. Control valve operating properly and in good condition?	<input type="radio"/>	<input type="radio"/>
6. Air supply and filter inspected and in good condition?	<input type="radio"/>	<input type="radio"/>
7. Lubricator working properly, in good condition with Mobil Almo Oil #525 level at top of bowl?	<input type="radio"/>	<input type="radio"/>
8. Airline purged prior to connection to spider?	<input type="radio"/>	<input type="radio"/>
9. Airline attached to side of spider to keep weight off of hose connection assembly?	<input type="radio"/>	<input type="radio"/>
10. Rigging point capable of supporting 4,000 lbs.?	<input type="radio"/>	<input type="radio"/>
11. Life line anchor point capable of supporting 5,400 lbs. and separate from rigging point?	<input type="radio"/>	<input type="radio"/>
12. All personnel trained in the use of spider staging and have documentation?	<input type="radio"/>	<input type="radio"/>
13. Prevailing winds less than 15 mph, sustained and less than 20 mph gusts?	<input type="radio"/>	<input type="radio"/>
14. Cable feeding on to drum properly?	<input type="radio"/>	<input type="radio"/>
15. Cable in good shape, free from broken wires, kinks, etc.?	<input type="radio"/>	<input type="radio"/>
16. No personnel working below spider staging?	<input type="radio"/>	<input type="radio"/>
17. Area barricaded with warning signs or caution tags?	<input type="radio"/>	<input type="radio"/>
18. Spider not suspended over critical equipment or systems?	<input type="radio"/>	<input type="radio"/>

Comments and Signature:	
Comments:	
Name: (Please Print)	
Signature:	Date:

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10.0 2 GALLON - 5 GALLON - 10 GALLON PRESSURE PAINT SPRAY POT

a) Safety:

1. Inspect Condition of Pot:

- a) Look for corrosion on steel tank bottom.
- b) Inspect lid gasket for cracks or damage.
- c) Inspect condition and tightness of all fittings.
- d) Check lid locking lugs for excessive wear on thumbscrew threads, and attaching hardware. Do not use channel locks, wrenches or pliers to tighten lugs. Lugs should be tightened by hand only.

2. Inspect Regulators and Pressure Relief Valves:

- a) Are gauges readable and operating properly?
- b) Are regulators securely attached and fittings tight?
- c) Are Pressure Relief Valves working properly and free of paint and debris?
- d) Any valves or gauges that are not functioning properly must be immediately replaced.
- e) When regulators and pressure relief valves are not functioning properly, the pot pressures up very high, causing the gasket to leak. Personnel then try to tighten the lid further, sometimes using channel locks or wrenches, to stop the leak. After a period of time this warps the pot to the point it won't ever seal.
- f) Channel locks or wrenches should never be used to tighten the lid. This can permanently damage the seal and lid.

3. Inspect Hoses:

- a) Kinks or visible damage to outer covering.
- b) Fittings secure.
- c) Threads clean and not excessively worn.

b) Operating:

1. Attach spray gun to fluid and air line (spray hoses).
2. Secure hose fittings w/crescent wrench (not pliers).
3. Attach air supply hose from compressor to air inlet side of fluid pressure regulator.
4. Back out regulator knobs (turn counter clockwise) until they are loose (closed position).
5. Unscrew locking lugs and remove lid.
6. Pour material into pot. (Paint or Cleaning Solvent)
7. Replace lid, ensuring gasket is present and in good condition, then secure with locking lugs - (Hand tighten thumbscrews equally).

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8. Open main air valve at compressor.
9. If equipped, open air supply valve on pot.
10. Slowly increase (turn knob clockwise) fluid pressure while holding trigger on gun in the full open position (hold gun over material container not over ground).
11. Increase fluid pressure until right amount of material is flowing from spray gun tip (about 18" stream when gun is held level).
12. Release gun trigger.
13. Pull trigger part way back (air only position) and turn air pressure regulator control knob clockwise until air is flowing from spray gun air cap.
14. Check pot, fittings, and hoses for leaks.
15. Increase fluid and air pressure as needed to produce proper material flow and atomization.

11.0 SETTING UP PROCEDURE FOR SAND HOPPERS (NEW SECTION)

a) Setting up

Setting up a Sand Hopper is a very important task. Brand will assure that all hoppers are set on suitable foundation and conditions do not change at any time during the course of the job. Having a suitable foundation is important and applying adequate matting will distribute the weight of the sand hopper (40 tons) throughout a larger area.

1. Brand Supervisor shall contact Customer Contact/Brand Safety Department to retain historical data on the ground condition.
2. Brand will not setup any sand hoppers inside of any tank farm or any areas without a suitable foundation.
3. Brand will setup sand hoppers on matting that can withstand at least 50 ton max.(3-PLY LAMINATED MATTING)
4. All matting will be discarded after 3 years of service or when any visual defect is noted.
5. Matting will be stored off the ground in order for matt(s) to breathe, to prevent moisture.
6. Brand will only set sand hopper without mats if the ground material is made of concrete/asphalt with the approval by the Safety Department and the Customer Contact.
7. Before any cables are applied to a sand hopper, Brand's Field Supervisor will check the level of the hopper with a suitable level on both sides (4 foot level).

Sand hopper level will be checked frequently and after any rain or any conditions that could cause the ground under the foundation to become saturated with any type of liquid substances.

8. All sand hoppers shall be tied-down with suitable anchors not more than three feet away from the hopper base (Cross Anchors). Brand is currently utilizing cross anchor that has a maximum strength of 4500lbs. Only for stability when empty.

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9. Wire rope shall be in good condition and ran through the rigging eyes on top of the sand hopper crossways and anchored down by at least three fist clamps. **(x)**

All cables will be marked with barricade tape to prevent any accidental contact with any passing motorized equipment.

10. Any Brand employee that will attempt to access the top of one of these sand hoppers will utilize a full body harness and will follow PSG's 100% tie-off policy.
11. When setup is complete the Field Supervisor will barricade the restricted areas called the fall zone. **(THE FALL ZONE IS DETERMINED BY THE HEIGHT OF THE SAND HOPPER PLUS 5 FEET).**

Example:

If the sand hopper is 20 feet tall the fall zone must be at least 25 feet around the sand hopper and no personnel or equipment can be located inside of this area.

b) Inspection:

Before a sand hopper is transported to any Brand's jobsite/facility the Field Supervisor and a member of the Safety Department will conduct a full inspection. Matting will be inspected weekly along with the weekly inspection of the sand hopper.

1. The intense inspection will consist of checking the following:
 - Ladder system
 - Welds(cracks/abrasions)
 - Structural defects(corrosions, cross-brace, legs{pipes/angle})
 - Rigging eyes(corrosion/wear)
 - Dispensing spouts
2. Brand's Divisional Office will also inspect the hoppers and will correct any deficiencies found during any inspections.

A weekly check list inspection on each sand hopper and matting that is currently being utilized on any Brand jobsite/facility will be filled out by the Field Supervisor.

See Sandhopper Weekly Inspection Report (Form B) attached. This check list inspection report will accompany the JSA and the permit and will be turned in to the Safety Department at the end of every shift.

3. Brand's Field Supervisor will be furnished a 4 foot level to check the level of the hopper and to make sure conditions did not change.
4. Brand strives on the highest grade of safety from the start to the finish of any job that means even during the setting-up process. All Field Supervisors will attend a training course before he/she will take responsible to set-up a sand hopper.
5. Brand Divisional or Site Safety Coordinator will also be responsible for weekly inspections on all Sand Hoppers that are set by any Brand Supervisor.

SAFE COATINGS APPLICATION

FORM B

SAND HOPPER WEEKLY INSPECTION REPORT

Job Location:	Field Supervisor:
Date of Inspection:	3-Ply Laminated Matting: YES <input type="radio"/> NO <input type="radio"/>
Manufactured Date:	Ground Condition:

INSPECTION REPORT MUST BE ACCOMPANIED WITH THE PERMIT AND THE JSA LOCATED ON SITE.			
VISUAL CONDITION	ACCEPTABLE	NOT ACCEPTABLE	REASON FOR N/A
Structural defects (rust, crack welds, etc.)	<input type="radio"/>	<input type="radio"/>	
Ladder system (missing rungs, rust, etc.)	<input type="radio"/>	<input type="radio"/>	
Cables and fist clamps condition (3-fist clamps)	<input type="radio"/>	<input type="radio"/>	
Cross anchors	<input type="radio"/>	<input type="radio"/>	
Ground condition	<input type="radio"/>	<input type="radio"/>	
Spout condition	<input type="radio"/>	<input type="radio"/>	
Loading pipe	<input type="radio"/>	<input type="radio"/>	

All 3-ply laminated matting will be discarded if any defects are found or at the end of the 3 years life span.
If any defects are found in any part of this inspection contact Brand Safety Department.

SAFE COATINGS APPLICATION

12.0 WATER WASH AND HYDRO BLAST EQUIPMENT (NEW SECTION)

12.1 Purpose

The purpose of this procedure is to assure personnel conducting and or in the affected work areas of pressure wash and hydro blast equipment are trained and knowledgeable on the safe operation of the equipment. This procedure is designated as minimal guidelines to protect personnel, property and the environment.

12.2 Scope

This procedure encompasses activities which Brand its subsidiaries, divisions, associated companies and sub contractors carry out whether on company owned or client premises.

12.3 Definitions

a) **Abrasive Injection System**

A manufactured system, which consists of a mixing nozzle and hose assembly. System is designed to allow for injection of abrasive into the water stream.

b) **Chemical Injection System**

A manufactured system, which consists of a mixing nozzle and hose assembly. System is designed to allow for use of chemicals in the water stream for cleaning and treatment purposes.

c) **Design Pressure**

The maximum operating pressure plus adequate allowance which the equipment and associated components and or attachments are designed to operate without imposed stress.

d) **Discharge Hose**

A high-pressure hose specific to pressure ratings, which attaches to the unit pump assembly and shut-off gun.

e) **Fixed Degree Nozzles**

Nozzles which, range from 0 degrees to 60 degrees and are interchangeable to provide various spray patterns. Fixed degree nozzles are designed for installation on the lance.

f) **High Pressure Dump Gun**

Designed to operate in high-pressure systems (above 3000-psi) which are not equipped with a regulator or unloader to prevent over pressure damage.

g) **Hot Water/Steam Pressure Washer**

A washer unit equipped with an on board heater capable of producing water streams with temperature ranges from 200 degrees to 210 degrees Fahrenheit. Steam producing units may create wet steam at temperatures up to 325 degrees Fahrenheit.

h) **Hydro Blasting**

The use of equipment where water actuated pressure in excess of 3000-psi or greater is applied to substrate.

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i) **Inlet Pressure Regulator:**

Installed on the inlet side of the pump system in cases where the inlet pressure may exceed 40-psi.

j) **Inline Strainer:**

Installed on the inlet side of the system pump to prevent sediment from entering the pump assembly.

k) **Lance:**

Attached to the shut-off gun and is equipped with a nozzle on the end. Various lengths are designed to increase overall length of the gun assembly and rated for specific pressure requirements.

l) **Maximum Operating Pressure (MOP)**

The maximum gauge pressure which the equipment and associated components and or attachments are designed to operate.

m) **Normal Operating Pressure (NOP)**

The pressure which the equipment and associated components and or attachments will normally be operated at.

n) **Pressure Regulator**

Maintains established system pressure and may be fixed or adjusted depending on the type of regulator.

o) **Pressure Relief Valve:**

Provides back up protection to assure complete pressure relief for maximum pump and system pressure.

p) **Shut-Off Gun**

A gun, which is selected to match the system flow and pressure requirements, temperature and function being performed. Flow through the gun occurs by squeezing the trigger on the gun and is equipped with a Safety Latch to prevent accidental startup.

q) **Turbo Nozzle**

A nozzle, which converts 0 degrees blasting power to a 25 degree spinning action with increased agitation to substrate.

r) **Variable Degree Nozzle**

A nozzle that allows for manual adjustment of spray patterns and mounts to the end of the lance.

s) **Water Washing**

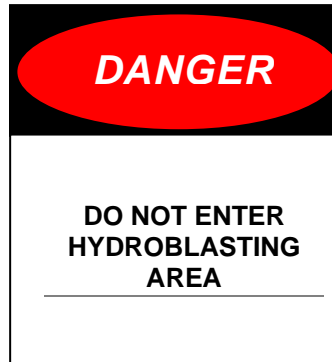
The use of equipment where water actuated pressure 3000-psi or less is applied to substrate.

All work involving water-actuated pressures greater than 3000-psi, injection blasting, 0-degree nozzles, hot water/steam washers and turbo nozzles are considered special activities with serious hazards. As such a Task Safety Analysis must be created and pre-approved by local Division, Area or Region Safety prior to job start up.

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12.4 Pre-Job Considerations

Prior to beginning any water actuated spray applications a pre-job assessment shall be conducted to determine if the appropriate resources are available and work area conditions are analyzed, which include but are not limited to the following considerations.



1. Training of personnel for use of the equipment and in the affected work area. Personnel who are assigned to operate water wash and hydro blast equipment shall be trained on this procedure prior to assignment of the work process.
2. The work area shall be surveyed to identify sensitive operating equipment and provide protection to equipment. Protection requires notifying operations personnel of the expected activity and securing the work area. Consideration should be given as to whether sensitive operating equipment needs to be taken from service at intervals when work is performed. Where sensitive equipment can not be taken from service and danger exists that equipment damage or process upset may occur rigid barriers should be installed to prevent any incidental damage or process upset. Where rigid barriers are installed in process areas or on client facilities the client must approve the installation and location of these barriers.
3. The work area shall be surveyed to identify any electrical sources which may become damaged or impose a hazard to employees. Use of actuated water pressure near any overhead power lines, electrical substations and transformers shall be pre-approved by the SHE Department to assure a safe approach distance and or lock out of service supply.
4. The structural integrity of the substrate, piping and or equipment shall be determined prior to startup of water washing and hydro blasting to determine if the imposed pressure from the water stream is a safe process.
5. The work area and surroundings shall be inspected to identify and remove any loose objects that could become air borne due to contact with the water stream.
6. Material Safety Data Sheets shall be obtained from the appropriate sources to identify any chemicals that may be disturbed and or removed from substrate, piping and equipment.

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7. Prior to beginning work an environmental plan shall be developed to determine arrangements that must be made for capture and or disposal of spent water supplies. Some drain systems may be approved for water disposal while others may not. Approval to discharge spent water into existing drain systems must be determined prior to beginning work. Where an approved drain system is not available spent water shall be captured and retained until appropriate sampling is conducted and a permit for disposal is obtained.
8. Work area perimeters must be established taking into consideration the expected water pressure and spray patterns used on the equipment. These perimeters shall be demarcated with red barricade tape and signs posted to prevent access. The signs shall read as follows:

12.5 Operational Overview

Operational planning of the work process requires that each job is pre-planned and includes administrative, engineering controls and use of required PPE to prevent personal injury or property damage.

1. Personnel Selection

Personnel shall be selected using decision-making logic that includes the employees' verifiable previous experience with the type of equipment selected. New employees to a site should not be assigned to operate equipment independent of experienced personnel unless directly supervised. The size crew should be determined through consideration of the scope of work, work area dimensions, experience level of personnel and rotation of crewmembers as necessitated by water actuated pressure.

2. Training

All personnel assigned to water washing and hydro blasting tasks shall be trained initially prior to assignment of work and on an annual basis. This training shall also be conducted for support personnel assigned to the work areas where water washing and hydro blasting activities are conducted. The training outline and test are in sections **9** and **10** of this procedure.

3. Selection Of Equipment

High-pressure water cleaning processes are a potentially dangerous operation if not performed in a safe manor. Water streams are capable of generating a velocity equal to or greater than a 45-caliber bullet and equally as capable of as much damage. Injuries sustained with the use of this type equipment are most often serious in nature. The seriousness of these type injuries is increased with the potential of injection type injuries when using chemical or abrasive injection systems. The potential for puncture, laceration, injection, amputation and fatal accidents can be alleviated by proper selection of equipment, engineering and administrative controls.

Where lower pressure equipment can be selected (less than 3000-psi) instead of high-pressure equipment (greater than 3000-psi) it is preferable. Various types of nozzles are also critical in lessening the potential for serious injury. For example a 0- degree nozzle has a greater cutting effect than a 30-degree or 60-degree nozzle.

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Injection type nozzles pose a serious injury potential in that a chemical or abrasive can be injected into the skin if the water stream contacts a body part. Turbo nozzles also called roto-tip nozzles have increased cutting ability over fixed nozzles due to their design and may be equally dangerous. It is critical to select equipment approved by the company when renting or purchasing these or additional items. Any equipment rented or purchased shall be equipped with the manufactures safe operating procedures and or operation manual containing these procedures.

4. Equipment Usage

1. Water wash and hydro blast units and all associated system components shall be inspected prior to use and during use by the assigned supervisor and operator of the equipment. An inspection form is provided in this procedure (Form C). Only equipment and its associated components designed by the manufacture are to be used. Hoses, fittings, nozzles, valves, regulators, shut-off guns and lances must be maintained in their original condition and replaced with approved manufacturer components. This requirement is necessary to assure integrity with the manufacture design pressure rating.
2. Water wash and hydro blast units shall not be used by employees for cleaning boots, gloves, hands or other body parts and shall not be pointed in the direction of other personnel.
3. The shut-off gun and or high pressure dump gun shall be equipped with a safety device on the trigger and utilized when moving the equipment from one location to another. This safety devise prevents the trigger from engaging resulting in accidental flow to the nozzle.
4. Hoses shall be routed so as not to create a tripping hazard and contained in the barricaded area. Hoses must be of the type designed by the manufacturer of the unit and should not be coiled or positioned in a manner creating a pressure surge. When hoses are pressurized personnel shall not handle the hose within two feet of the hose fitting connection. Hoses which show signs of wear, cuts and abrasions shall be taken form service, tagged as inoperative and replaced immediately. Hose failure may occur near fittings due to bending stresses during use and handling. On equipment operating at pressure greater than 3000-psi a shroud to protect the operator must shield hose to gun connections. When hose drops exceed ten feet, the hose shall be securely tied off to a rigid support with fiber rope. Wire shall not be used to secure hoses at fixed locations.
5. A crew shall not consist of less than two personnel and at least one employee must maintain contact with the operator at all times. Emergency care procedures must be in place to allow immediate care in the event of a serious injury.
6. Administrative controls in addition to training of affected personnel shall include rotation of operating duties when performing hydro blasting or water washing when warranted by equipment used. Extension lances up to sixteen feet while operated at pressures below 3000-psi and use of Turbo Nozzles require rotation to prevent fatigue.
7. The unit shall not be started unless the operator is in position and prepared for startup.

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8. The back thrust generated by this type of equipment dictates that an adequate work surface is provided. Personnel operating units that contain a substantial amount of back thrust shall not perform work from work areas, which do not meet the requirements of a scaffold or fixed platform.
9. The pressure must be removed from the system before tightening or loosening fittings and replacing or adjusting nozzles.
10. A pressure relief valve shall be installed on the high-pressure side of the pump set to relieve at no higher than the maximum allowable working pressure (MAWP) of the lowest rated component in the high-pressure system.
11. A pressure regulator must be installed on the high-pressure side of the pump set to regulate established pressure.
12. Shut-off guns and lances shall be of adequate length to prevent placement of feet and body parts under the water stream. Lances and shoulder positioned guns are assigned to units operating at high-pressures in excess of 3000-psi and for certain types of nozzles such as injection nozzles and 0-degree nozzles. Where the manufacturer has designed a gun/lance system to a specific length this design must be adhered to.
13. Inline strainers and inlet pressure regulators are required for the following purposes. The inline strainer must be installed and maintained to prevent sediment from entering the pump housing and serves as a filter. The Inlet Pressure Regulator must be installed on units where inlet pressure could exceed 40-psi.
14. When using chemical or abrasive injection systems employees must wear approved respiratory protection for concentration and contaminants. The MSDS sheet for the injected substance must be reviewed and approved for these types of operations and a determination made for the type of respirator.
15. Fuel hazards – For engine powered equipment, the fuel used is considered flammable (gasoline) and or combustible (diesel) and may ignite if coming in contact with hot surfaces. Equipment shall be turned off and allowed to cool down for at least 15 minutes before refueling.
16. Exhaust hazards – Do not place a fuel-powered unit inside a building, enclosed or confined space without adequate ventilation and continuous CO monitoring. Carbon Monoxide (CO) is a poisonous gas, which is colorless and odorless.
17. Injection Hazard – Never change, loosen, tighten, adjust or look into the end of the nozzle when the system is pressurized. Serious injury can occur from pressurized equipment. Never point nozzle at anything but the work surface to be cleaned. Assume full pressure is present at all times.
18. Burn Hazard – Hot Water/Steam Pressure units are capable of generating temperatures between 200 and 325 degrees Fahrenheit. For this reason added precautions are required to prevent burns and or scalding of body parts. This type of equipment requires Corporate Safety approval prior to use.

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19. Adequate lighting is required to assure operators of equipment are able to maintain visibility of the water stream at all times. Where the necessity exists for interior or portable lighting the electrical power must be protected by a (GFCI) Ground Fault Circuit Interrupter at the power source.
20. Static hazard – The use of de-ionized (de-mineralized) water must be avoided. The water stream can create static charges after leaving the nozzle.
21. Start-Up Procedure
 1. Follow proper area entry and work permit procedures for the facility and conduct JSA/Tool Box meeting. Hot work permit must be obtained to locate washer unit adjacent to and or inside process areas.
 2. Barricade area and post signs.
 3. Check and clean inline strainer, fuel and oil levels of unit.
 4. Chock wheels of unit.
 5. Connect inlet hose to approved water supply.
 6. Connect discharge hoses to unit and shut-off gun with lance attached to gun.
 7. Turn on water supply to unit.
 8. Start unit following manufacturer's safe operating instructions.
 9. Check gauges to assure unit normal operating pressure is set correctly. If normal operating pressure is greater than 3000-psi Corporate Safety must approve use of equipment.
 10. Engage system and flush lines.
 11. Turn off water supply, disengage system and shut unit off to make any adjustments or change nozzles.
 12. Turn water supply on and check for any leaks.
 13. Restart unit and engage system.
 14. Have operator engage gun while in direct line of sight with pump operator. Gun operator should test equipment while pointing nozzle in a safe direction away from personnel.
 15. This process may have to be conducted several times to achieve desired pressure and correct nozzle.

12.6 Personal Protective Equipment (Water Washing)

Personal protective equipment utilized for water washing shall consist of the following:

- Hard Hat
- Safety Glasses
- Face Shield
- Hearing Protection

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- Slicker Suits
- Rubber Gloves
- Steel Toe Rubber Boots with Metatarsal Protection

12.7 Personal Protective Equipment (Hydro Blasting, Injection Systems, 0-Degree Nozzles and Turbo Nozzles)

Personal Protective Equipment required for hydro blasting shall consist of all the above and include:

- Shin Guards
- Activity Requires Corporate Safety Approval

SAFE COATINGS APPLICATION

FORM C (PAGE 1 OF 2)

WATER ACTUATED PRESSURE INSPECTION

Inspection Item	Approved	Not Approved
Are personnel trained and have documentation in possession?	<input type="radio"/>	<input type="radio"/>
Structural integrity of substrate, piping and equipment	<input type="radio"/>	<input type="radio"/>
Work area surveyed for electrical power sources	<input type="radio"/>	<input type="radio"/>
Work area surveyed for electronic and process sensitive equipment	<input type="radio"/>	<input type="radio"/>
Rigid barriers approved and installed where necessary	<input type="radio"/>	<input type="radio"/>
Environmental plan in place and approved for water disposal	<input type="radio"/>	<input type="radio"/>
Communication system in place for crew and operator of unit	<input type="radio"/>	<input type="radio"/>
Emergency care plan in place	<input type="radio"/>	<input type="radio"/>
Corporate approval requirements met for specified equipment	<input type="radio"/>	<input type="radio"/>
Work area free from small objects which could become airborne	<input type="radio"/>	<input type="radio"/>
Work area perimeters established, barricaded and signs posted	<input type="radio"/>	<input type="radio"/>
Hoses inspected for wear, cuts, abrasions and dry rot	<input type="radio"/>	<input type="radio"/>
Hoses not repaired, in original condition and design	<input type="radio"/>	<input type="radio"/>
Hose couplings in good condition	<input type="radio"/>	<input type="radio"/>
Lance in good condition	<input type="radio"/>	<input type="radio"/>
Shut-off gun / High-Pressure Dump Gun in good condition	<input type="radio"/>	<input type="radio"/>
Safety latch on trigger and functional	<input type="radio"/>	<input type="radio"/>
Approved nozzle design	<input type="radio"/>	<input type="radio"/>
System inspected while under pressure and no leaks	<input type="radio"/>	<input type="radio"/>

SAFE COATINGS APPLICATION

FORM C – WATER ACTUATED PRESSURE INSPECTION (PAGE 2 OF 2)

Inspection Item	Approved	Not Approved
MSDS reviewed with personnel	<input type="radio"/>	<input type="radio"/>
Inline Strainer in place and clean	<input type="radio"/>	<input type="radio"/>
Pressure Regulator on unit	<input type="radio"/>	<input type="radio"/>
Pressure Relief Valve on unit	<input type="radio"/>	<input type="radio"/>
Inlet Pressure Regulator on unit(required in excess 40-psi)	<input type="radio"/>	<input type="radio"/>
Administrative control plan in place to alternate operator duties	<input type="radio"/>	<input type="radio"/>
Work area platforms available for elevated work	<input type="radio"/>	<input type="radio"/>
Elevated work hoses secured with rope and safely routed	<input type="radio"/>	<input type="radio"/>
Head protection	<input type="radio"/>	<input type="radio"/>
Hearing protection	<input type="radio"/>	<input type="radio"/>
Slicker Suit	<input type="radio"/>	<input type="radio"/>
Chemical Suit required for acid, caustic, etc.	<input type="radio"/>	<input type="radio"/>
Eye and face protection (safety glasses and face shield)	<input type="radio"/>	<input type="radio"/>
Eye and face protection for acid /caustic areas (full face Resp.)	<input type="radio"/>	<input type="radio"/>
Rubber gloves	<input type="radio"/>	<input type="radio"/>
Steel toe rubber boots	<input type="radio"/>	<input type="radio"/>
Metatarsal and shin protection	<input type="radio"/>	<input type="radio"/>

Signatures:			
Jobsite:		Location:	
Inspector Signature:	X	Date:	

SAFE COATINGS APPLICATION

TRAINING OUTLINE

Target Employees

All personnel assigned to water wash and hydro blast operations including support personnel in the affected area shall receive the following training.

Frequency of Training

Training shall be conducted prior to assignment and refresher training shall be conducted annually. The employee's supervisor will verify that personnel assigned to operator duties are familiar with and understand the hazards associated with specific types of units.

Training Objectives

- Discuss training necessity and frequency.
- Discuss definitions and terminology related to water actuated cleaning processes.
- Discuss where and when corporate approval is necessary.
- Discuss pre-job considerations.
- Discuss barricades and warning signs.
- Discuss equipment selection and engineering controls.
- Discuss dangers of equipment and potential severity of injury.
- Discuss safe usage of equipment.
- Discuss required PPE for various types of equipment and applications.
- Discuss inspection requirements.
- Answer any questions that students have.
- Administer written exam.
- Review and discuss answers with students.

SAFE COATINGS APPLICATION

FORM D (PAGE 1 OF 2)

WATER ACTUATED PRESSURE EXAM

Signatures	
Printed Name:	Date:
Signature:	Instructor:

Questions
<p>1. Water washing is defined as water actuated pressure applied to surfaces at pressures</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> a) Not to exceed 5000-psi. <input type="radio"/> b) Not to exceed 3000-psi. </div> <div> <input type="radio"/> c) Not to exceed 10,000-psi. <input type="radio"/> d) Which the supervisor approves. </div> </div>
<p>2. Hydro Blasting is defined as water actuated pressure applied to surfaces at pressures</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> a) In excess of 10,000-psi. <input type="radio"/> b) In excess of 3000-psi. </div> <div> <input type="radio"/> c) In excess of 20,000-psi. <input type="radio"/> d) In excess of 5000-psi. </div> </div>
<p>3. Normal operating pressure is the pressure at which equipment and associated components</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> a) Will clean surfaces better. <input type="radio"/> b) Will normally be operated at. </div> <div> <input type="radio"/> c) Will normally not break down <input type="radio"/> d) Will not produce enough pressure. </div> </div>
<p>4. The safety device on the shut-off gun is to</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> a) Get in the way of productivity. <input type="radio"/> b) Keep untrained personnel from operating the gun. </div> <div> <input type="radio"/> c) Prevent unwanted startup of the flow to the nozzle. <input type="radio"/> d) Protect children from injury. </div> </div>
<p>5. The work area must be surveyed to identify the following concerns</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> a) Electronic equipment and electrical hazards <input type="radio"/> b) Work area is free of small objects that could become airborne. </div> <div> <input type="radio"/> c) Identify and protect sensitive operating equipment. <input type="radio"/> d) All of the above. </div> </div>
<p>6. Personnel performing hydro blasting must wear the following PPE.</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> a) Hard hat, safety glasses, face shield <input type="radio"/> b) Slicker suit <input type="radio"/> c) Hearing protection </div> <div> <input type="radio"/> d) Metatarsal foot and shin protection <input type="radio"/> e) All of the above </div> </div>

SAFE COATINGS APPLICATION

FORM D – WATER ACTUATED PRESSURE EXAM (PAGE 2 OF 2)

Questions (cont.)	
7. Various nozzles may be used without safety concerns since the pressure is all that matters.	<input type="radio"/> a) True <input type="radio"/> b) False
8. The operator of the nozzle should never attempt to	<input type="radio"/> a) Point the nozzle at another person. <input type="radio"/> c) Wash in the direction of power lines. <input type="radio"/> b) Wash off his boots <input type="radio"/> d) All of the above.
9. Some units are capable of generating water streams with the same velocity as a 45-caliber bullet and are equally as dangerous.	<input type="radio"/> a) True <input type="radio"/> b) False
10. High pressure water streams are capable of serious injury as well as generating back thrust and therefore require	<input type="radio"/> a) A work platform to work from. <input type="radio"/> d) Respect for the dangers of the equipment <input type="radio"/> b) Trained crewmembers to rotate operator duties. <input type="radio"/> e) All of the above. <input type="radio"/> c) An additional person in the area in case of an emergency

SAFE COATINGS APPLICATION

FORM E

WATER ACTUATED PRESSURE EXAM

ANSWER SHEET

Answers	
1.	B
2.	B
3.	B
4.	C
5.	D
6.	E
7.	B
8.	D
9.	A
10.	E

SAFE COATINGS APPLICATION

FORM F

HOSE INSPECTION CHECKLIST

Checklist	
<input type="radio"/>	No Soft Spots on Hoses.
<input type="radio"/>	No Cuts.
<input type="radio"/>	No Cracks.
<input type="radio"/>	No Signs of Dry Rot.
<input type="radio"/>	Couplings in Good Condition.
<input type="radio"/>	Hose Gaskets in Good Condition.
<input type="radio"/>	No Sign of Environmental or Chemical Damage.
<input type="radio"/>	Proper Use of Hoses and Rated for Use.
<input type="radio"/>	Proper Storage of Hoses.
<i>Hoses not meeting the above criteria must be removed from service and tagged for repair or replacement.</i>	

Signature	
Jobsite	Location
Inspector Signature	Date